
Franklin F. Snyder

Franklin Farison Snyder was born in Holgate, Ohio on 11 November 1910, the son of Samuel L. and Nettie M. (nee Farison) Snyder. He graduated from Libby High School in Toledo in 1928 and attended the University of Toledo for two years. In 1930, he transferred to Ohio State University, where he received a B.C.E. degree in 1932.

During the Great Depression, when promising engineers often encountered difficulties finding employment, Snyder obtained work in state and federal agencies. His first position was as a surveying foreman for the Ohio Division of Forestry. Afterwards, he joined the U.S. Geological Survey as a junior hydraulic engineer and assisted in the studies of rainfall and runoff. Results of his work were included in U.S.G.S. water supply paper #772, Studies of Relations of Rainfall and Runoff in the United States (1936).

Although still young, Snyder rapidly gained a reputation for expertise in the relationship between rainfall and runoff. He continued his work with the Tennessee Valley Authority in 1935-37. In Knoxville; he developed new flood routing procedures that were applied to existing and planned reservoirs in the Tennessee River basin. These procedures enabled hydrologists to calculate the course and character of floods as they progress through a river reach or a reservoir system. Snyder then joined the Pennsylvania Department of Forests and Waters, where he supervised studies of rainfall and runoff, part of a state effort to construct a statewide flood forecasting and warning system.

Meanwhile, beginning with the Flood Control Act of 1936, the United States government had initiated an ambitious flood control program to protect urban and rural areas. As the program developed and expanded, the necessity to develop reliable hydrologic data became apparent. The data was necessary to establish necessary reservoir and spillway capacity and to improve flood forecasting. Given these circumstances, Snyder's work obtained a larger audience, and his skills became more in demand.

In 1938, Snyder published the first of several papers in which he explained an important new approach to the study of runoff. He called his idea the synthetic unit hydrograph. Hydrographs show for a given point on a stream or channel the discharge, water surface elevation, stage, velocity or some other property of water in relation to time. Their dependability rests on available historical data from river and rain gauges, as well as on considerations of topography, channel slopes, and storage capacity. Unit hydrographs, as used by Snyder, were discharge graphs for one inch of surface runoff from a given area for a typical or specified type of storm over some unit of time. By analyzing runoff conditions in a large number of basins, Snyder was able to develop values for the duration of the runoff and flood peaks for different types of basins under varying conditions. His procedure allowed hydrologists to study and analyze drainage basins in

areas of from 10 to 10,000 square miles for which records were not available or were unreliable--this included a great number of basins in the United States.

In 1940, Snyder moved to Washington, D.C. to become an associate hydrologic engineer for the U.S. Weather Bureau. He was responsible for flood forecasting in 75 river districts. Gail Hathaway, chief of the reservoir and hydrology section in the Office of the Chief of Engineers, persuaded Snyder to come to the Corps in 1942, and Snyder remained with the Corps of Engineers for the next 24 years. In 1944-45, Snyder worked in Europe supervising flood forecasting procedures for the Rhine River. He received the War Department's "Exceptional Civilian Service" award for his overseas contributions. When he returned to the United States, he rejoined the Office of the Chief of Engineers and eventually rose to become the assistant chief of the hydraulics and hydrology branch. Snyder worked closely with Hathaway and others on questions dealing with spillway capacity. He also served as a special engineering consultant on the St. Lawrence Seaway project.

After retirement in 1966, Snyder became an international consultant, working on projects in Mexico, Columbia, Greece, Jamaica, Canada, Pakistan, India, Sudan, and the United States, among others. In 1989, Snyder received the Outstanding Civil Engineering Alumni Award from the Ohio State University Civil Engineering Alumni Association. Snyder married the former Elizabeth Bruton of Delaware County, Pennsylvania, in 1938. They have three children.

Personal Data

Franklin F. Snyder

Born: 11 November 1910
Hogate, Ohio

Education: University of Toledo, 1928 to 1930
Ohio State University, BCE Degree, December 1932
Ohio State University, CE Degree, 1942

Marriage: Mary Elizabeth (Bruton) Snyder
1 October 1938

Children: Mrs. Marilyn K. Stack
Carol Lamb Snyder
Gregory Lewis Snyder